REMARKS

Reconsideration of the captioned application in light of the following comments is courteously requested. Claims 1-10 are pending. Claims 1-10 stand rejected.

Objection to the abstract

The Examiner has objected to the language of the abstract. A new abstract is provided under the section entitled "**Amendments to the Specification.**" The abstract provided is supported by the specification and thus no new matter is added. Applicants believe the new abstract is in compliance with the rules and therefore request that the objection be withdrawn.

Rejection under 35 U.S.C. §112, first paragraph

The Examiner has maintained the rejection of Claims 1-10 under 35 U.S.C. §112, first paragraph because "the specification as originally filed fails to present any inhibitor found by the claimed method." This rejection is respectfully traversed.

The Examiner's focus on the disclosure of inhibitors is misplaced. Specific disclosure of the inhibitors identified is not required to enable the claims of the present application. The present claims are directed to methods for identifying inhibitors, not to the inhibitors themselves. Knowledge of an inhibitor of a dual substrate enzyme is not required to practice the methods of the present invention. The specification provides sufficient detail for one skilled in the art, to make and use the methods as claimed to identify inhibitors of dual substrate enzymes. Example 1 and Fig 3 show that by screening compounds from a library that at least four FabD inhibitors were found based on the ability of these compounds to reduce FabD activity 50-100%.

Applicants submit that the specification, as filed, enables one of skill in the art to make and use the claimed methods and therefore request withdrawal of the rejection under 35 U.S.C. §112, first paragraph.

Rejections under 35 U.S.C §102(e)

The Examiner has maintained the rejection of Claims 1-4 and 8 under 35 U.S.C. §102 (e) in view of Reynolds et al. This rejection is respectfully traversed.

The Examiner states that "[i]t is the examiner's position that Reynolds teaches in paragraph 40, that the separation of the radioactive product from the radiolabeled substrate IS required if one does not employ SPA" (underlined emphasis added). The Examiner states that this "indicates other types of assays do require the separation." The Examiner has overlooked the fact that the present invention **is** a SPA assay and not an "other type" of assay. Reynolds fails to teach the use of a separation step with an SPA assay as is claimed in the present application. In fact, Reynolds teaches away from the inclusion of a separation step by stating, in paragraph 40, that "the use of SPA obviates the need for separation of a radioactive product from the radiolabeled substrate."

The Examiner states that paragraph 41 of Reynolds discloses, "that the scintillant may be trapped in a different substrate than the one the ligand is bound to." The Examiner has mischaracterized paragraph 41. Reynolds does not make such a statement. Reynolds states that "that other arrangements of such a support system can also be employed . . . Any appropriate shape, configuration or composition of support system may be utilized in the practice of the present invention so long as the support system contains: accessible receptors for binding a suitable ligand, **and** trapped scintillant." (paragraph 41 lines 7-18, emphasis added) Reynolds requires that the same support both captures the ligand and traps scintillant. Reynolds does not describe a SPA assay in which a capture resin is separate from the scintillant resin.

The presently claimed invention uses a scintillant resin and a separate capture resin where the SPA support is not tethered to a ligand. Reynolds does not disclose the addition of a capture resin and the separate addition of scintillation resin or a separation step which are limitations of the present invention. The rejection of Claims 1-4 and 8 under U.S.C. 102 (e) is therefore in error. Applicants respectfully request that this rejection be withdrawn.

Rejections under 35 U.S.C. §103(a)

The Examiner has maintained the rejection of Claims 5 and 6 under 35 U.S.C. §103(a) over the combination of Reynolds in view of Mathews and Van Holde. The reference to which the Examiner refers to as Mathews and Van Holde is one reference,

Mathews, C.K., and van Holde, K.E., *Biochemistry*-Second Edition, 1995. (See Page 6 of the first office action dated September 16, 2002). Applicants will refer herein to this reference as "Mathews" to maintain consistent nomenclature between this response and the last office action and response. Applicants respectfully traverse this rejection.

As discussed above, Reynolds does not teach or suggest the presently claimed invention. In fact Reynolds teaches away from the present invention, which requires a separation step. Applicants reiterate that Mathews does not disclose anything in regard to an SPA assay. Therefore even if Reynolds is combined with Matthews, these references do not teach or suggest an assay with the limitations of Claim 1 and therefore cannot teach or suggest an assay as in the dependent claims 5 and 6. Therefore the rejection of Claims 5 and 6 is in error and Applicants respectfully request that this rejection be withdrawn.

The Examiner has also maintained the rejection of Claims 7, 9 and 10 under 35 U.S.C. §103(a) over the combination of Reynolds in view of Gul. Applicants maintain the reasoning of the previous response. Applicants assert that the Examiner has failed to appreciate and recognize that there is a clear distinction between conventional "scintillant proximity assay (SPA), [which] has the major advantage that the physical separation of product is not required"; and other radiolabeled assays whose success "relies on the efficient separation of the product formed during the reaction from residual substrate" (Gul, section 3.1). Gul is a reference text on enzyme assays and clearly distinguishes between these two types of assays. The Examiner states (p5, paper 8) that "Gul teaches it is preferable but not required to bind both the radiolabeled compound and the ligand to the same substrate." Applicants cannot locate such a statement in Gul and asks the Examiner to specifically point to the line in Gul where this teaching can be found. Applicants point out that Section 3.8 of Gul, which discusses SPAs, states that SPAs use "beads that are embedded with a scintillant and a specific capture molecule." (emphasis added).

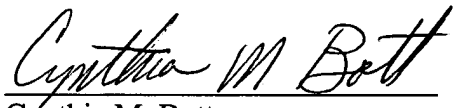
In addition, the Examiner makes the assertion that "[r]egarding increasing sensitivity such is a well known desirable characteristic of assays." While that may be true, it does not transform Gul into a reference that provides the motivation to add a

separation step to the method disclosed in Reynolds. Reynolds and Gul both teach away from such a modification.

For the reasons above the rejection of claims 7, 9 and 10 under 35 U.S.C. §103(a) over the combination of Reynolds in view of Gul, is in error. Applicants respectfully request withdrawal of this rejection.

Applicants respectfully submit that the claims 1-10 are in condition for allowance. Applicants request reconsideration of the claims and withdrawal of all of the objections and rejections. The Examiner is encouraged to contact the Applicants' undersigned attorney to discuss this matter if any questions should arise upon further examination of the pending claims.

Respectfully submitted,



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